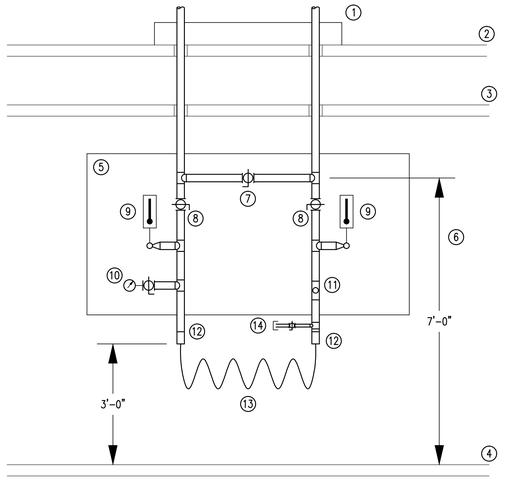
NOTES:
(START-UP AND INSTRUMENT MANIFOLD DETAIL ONLY)

1. WATER PROOF PIPE PENETRATION THROUGH ROOF. – SEE ARCHITECTURAL
2. ROOF
3. CEILING
4. FLOOR IN MRI EQUIPMENT ROOM.
5. ¾" THICK BALTIC BIRCH PLYWOOD BACKBOARD. SUPPORT MANIFOLD PIPING FROM BACKBOARD.
6. ALL PIPING 2" TYPE L COPPER HARD DRAWN.
7. 2" BYPASS FULL PORT BALL VALVE AT APPROXIMATELY 7'-0" A.F.F.
8. 2" FULL PORT BALL VALVE.
9. 0' TO 100' F THERMOMETER WITH RIGHT ANGLE ELEMENT AS SPECIFIED. (TYPICAL OF 2)
10. 0' TO 100' PSIG PRESSURE GAGE WITH GAGE COCK. SEE SPECIFICATIONS.
11. 10 TO 50 GPM IN-LINE FLOW METER ON MANIFOLD FOR THE ECHELON OVAL MRI AND 5 TO 25 GPM IN-LINE FLOW METER ON MANIFOLD FOR THE OASIS MRI. METER SHALL BE OF MOLDED ACRYLIC BODY WITH 316 SS BALL. MAXIMUM PRESSURE DROP 3 PSIG, ACCURACY +/- 5% OF SCALE, MAXIMUM PRESSURE 150 PSIG AT 70' F.
12. HOSE BARB WITH DOUBLE HOSE CLAMPS.
13. 12 FEET OF 1½" I.D. OPAQUE FIBER REINFORCED HOSE.
14. ¾" BALL VALVE WITH HOSE THREAD CONNECTION AND SCREW-ON CAP.



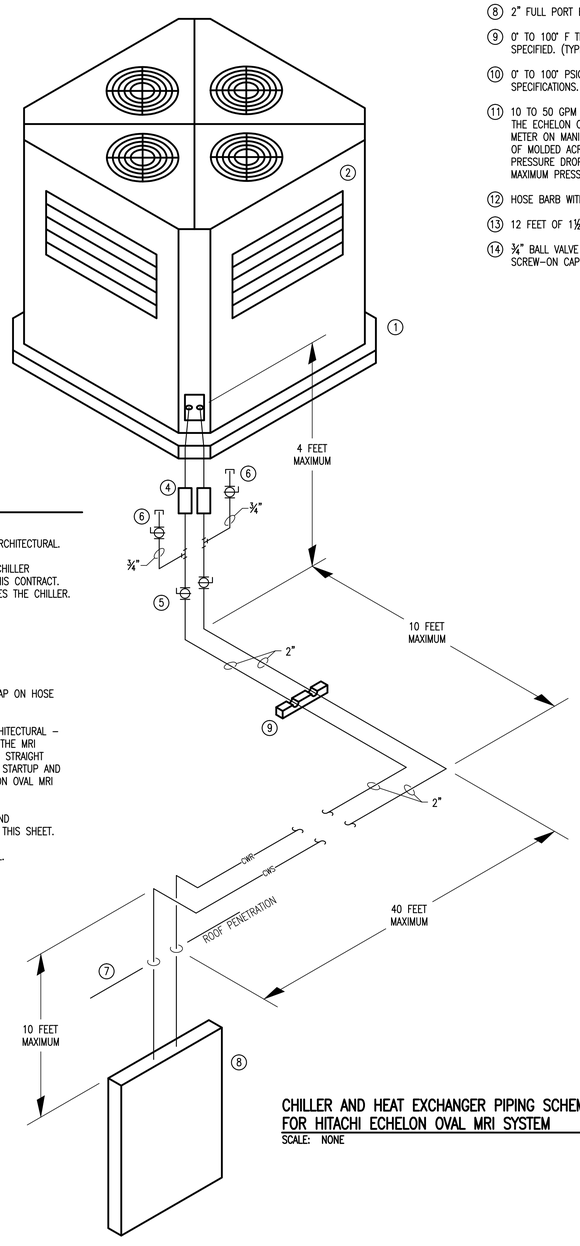
CHILLER START-UP AND INSTRUMENT MANIFOLD DETAIL
SCALE: NONE

GENERAL NOTES:
(THIS SHEET ONLY)

1. THE SCHEMATICS ON THIS SHEET ARE FOR BIDDING PURPOSES ONLY AND ARE ACCURATE ONLY AT THE TIME OF DESIGN FOR THE SPECIFIC MRI UNITS, HEAT EXCHANGERS, AND CHILLERS SHOWN AND IN THE EXACT CONFIGURATION SHOWN.
2. IF THE EXACT CONFIGURATION SHOWN IS NOT POSSIBLE FOR ANY REASON INFORM THE COR OF THE ISSUE FOR FURTHER EVALUATION. DO NOT EXCEED MAXIMUM PIPE LENGTHS NUMBER OR NUMBER OF ELBOWS AND VALVES WITHOUT RE-EVALUATING THE PIPE SIZES.
3. IF THE SPECIFIC MRI, AND CHILLER MODELS SHOWN ON THIS SHEET ARE NOT WHAT IS FURNISHED THE CONTRACTOR SHALL HIRE A LICENSED MECHANICAL ENGINEER TO SIZE THE PIPING FOR THE ACTUAL EQUIPMENT THAT IS TO BE PROVIDED.
4. ALL CHILLED WATER PIPING SHALL BE INSULATED AS SPECIFIED.
5. ALL CHILLED WATER PIPING EXPOSED TO WEATHER SHALL BE HEAT TRACED AND THE INSULATION SHALL BE FINISHED WITH ALUMINUM JACKETING.
6. DO NOT CONNECT PIPING TO THE CHILLER UNTIL WATER TREATMENT CONTRACTOR HAS THOROUGHLY DETERGENT CLEANED AND FLUSHED ALL PIPING AS SPECIFIED. CONTRACTOR SHALL PROVIDE BYPASS HOSES AND PUMP FOR THE PURPOSE OF FLUSHING THE SYSTEM PIPING.
7. ONCE THE INSTALLATION IS COMPLETE THE WATER TREATMENT CONTRACTOR SHALL FILL THE SYSTEM WITH DISTILLED WATER AND DOWFROST OR APPROVED EQUAL INHIBITED PROPYLENE GLYCOL TO A CONCENTRATION OF 35% BY VOLUME.
8. FOR THE PURPOSES OF STARTUP AND CONNECTION TO MAGNET THE WATER TREATMENT CONTRACTOR SHALL LEAVE ON SITE 15 GALLONS OF 35% PROPYLENE GLYCOL AND DISTILLED WATER MIXTURE IN A CLOSED CONTAINER.

NOTES:
(ECHELON OVAL CHILLER ONLY)

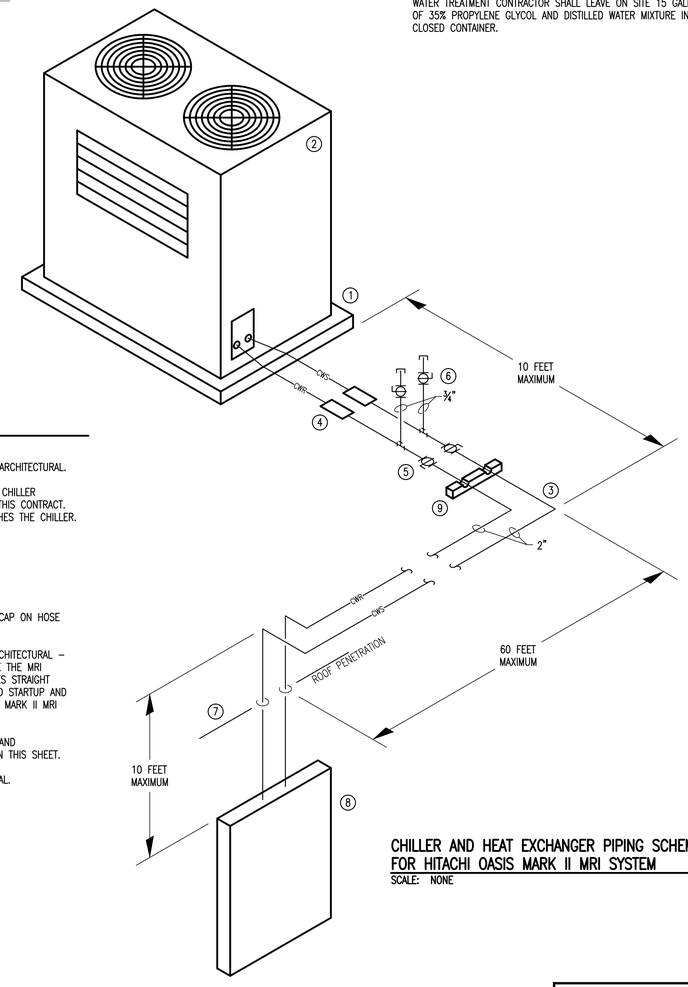
1. CHILLER EQUIPMENT PAD ON ROOF – SEE ARCHITECTURAL.
2. HASKRIS MODEL R1600 AIR COOLED WATER CHILLER FURNISHED BY OTHERS, INSTALLED UNDER THIS CONTRACT. CHILLER STARTUP BY VENDOR THAT FURNISHES THE CHILLER.
3. 2" TYPE L COPPER TUBING.
4. FLEXIBLE PIPE CONNECTOR.
5. LINE SIZE BALL VALVE (TYPICAL)
6. BALL VALVE, HOSE CONNECTOR, THREADED CAP ON HOSE CONNECTOR. (TYPICAL OF 2)
7. PIPE PENETRATION THROUGH ROOF. SEE ARCHITECTURAL – PROVIDE THIS PENETRATION DIRECTLY ABOVE THE MRI EQUIPMENT ROOM SO THAT THE PIPING GOES STRAIGHT DOWN AND ALIGNS WITH THE WALL MOUNTED STARTUP AND INSTRUMENTATION MANIFOLD FOR THE ECHELON OVAL MRI MACHINE.
8. PROVIDE WALL MOUNTED CHILLER STARTUP AND INSTRUMENTATION MANIFOLD AS DETAILED ON THIS SHEET.
9. ROOF-PIPE SUPPORTS – SEE ARCHITECTURAL.



CHILLER AND HEAT EXCHANGER PIPING SCHEMATIC FOR HITACHI ECHELON OVAL MRI SYSTEM
SCALE: NONE

NOTES:
(OASIS MARK II CHILLER ONLY)

1. CHILLER EQUIPMENT PAD ON ROOF – SEE ARCHITECTURAL.
2. HASKRIS MODEL R1200 AIR COOLED WATER CHILLER FURNISHED BY OTHERS, INSTALLED UNDER THIS CONTRACT. CHILLER STARTUP BY VENDOR THAT FURNISHES THE CHILLER.
3. 2" TYPE L COPPER TUBING.
4. FLEXIBLE PIPE CONNECTOR.
5. LINE SIZE BALL VALVE (TYPICAL)
6. BALL VALVE, HOSE CONNECTOR, THREADED CAP ON HOSE CONNECTOR. (TYPICAL OF 2)
7. PIPE PENETRATION THROUGH ROOF. SEE ARCHITECTURAL – PROVIDE THIS PENETRATION DIRECTLY ABOVE THE MRI EQUIPMENT ROOM SO THAT THE PIPING GOES STRAIGHT DOWN AND ALIGNS WITH THE WALL MOUNTED STARTUP AND INSTRUMENTATION MANIFOLD FOR THE OASIS MARK II MRI MACHINE.
8. PROVIDE WALL MOUNTED CHILLER STARTUP AND INSTRUMENTATION MANIFOLD AS DETAILED ON THIS SHEET.
9. ROOF-PIPE SUPPORTS – SEE ARCHITECTURAL.



CHILLER AND HEAT EXCHANGER PIPING SCHEMATIC FOR HITACHI OASIS MARK II MRI SYSTEM
SCALE: NONE

Revisions:	Date

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Approved: Project Director

Project Title: EXPAND RADIOLOGY AND SPS OVERTON BROOKS VAMC

Location: SHREVEPORT, LA

Date: 04-17-2015 | Checked: PJC | Drawn: JSW

Project Number: 667-083

Building Number: 1

Drawing Number: M505

Dwg. 128 of 160

FINAL SUBMITTAL

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

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